STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/571,511
Source: IFW
Date Processed by STIC: 3/21/06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO **REDUCE** ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<**http://www.uspto.gov/ebc/efs/downloads/documents.htm**> , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):** U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED **SUGGESTED CORRECTION** **SERIAL NUMBER:** 10/591,571

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1____	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2____	Invalid Line Length	The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
3____	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
4__J__	Non-ASCII	The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
5____	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6____	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
7____	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
8____	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If **intentional**, please insert the following lines for **each** skipped sequence. <210> sequence id number <400> sequence id number 000
9____	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
10____	Invalid <213> Response	Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence. (see item 11 below)
11____	Use of <220>	Sequence(s) ___ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules
12____	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13____	Misuse of n/Xaa	"n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid

IFWP

RAW SEQUENCE LISTING DATE: 03/21/2006
PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
  3 <110> APPLICANT: HuBit Genomix, Inc.
  4       Doi, Toshio
  6 <120> TITLE OF INVENTION: A method for detecting diabetic nephropathy and kits
  7       therefor, agents for preventing and/or treating
  8       diabetic nephropathy, a method for identifying
  9       substances effective in prevention and/or treatment
 10       and kits therefor
 12 <130> FILE REFERENCE: FP-039PCT
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/571,511
C--> 15 <141> CURRENT FILING DATE: 2006-03-10
 17 <150> PRIOR APPLICATION NUMBER: JP P2003-319538
 18 <151> PRIOR FILING DATE: 2003-09-11
 20 <160> NUMBER OF SEQ ID NOS: 24
 22 <170> SOFTWARE: PatentIn Ver. 2.1
```

see item 4 on Error Summary Sheet

ERRORED SEQUENCES

This is not an RNA sequence

Does Not Comply
Corrected Diskette Needed

```
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 1990
E--> 26 <212> TYPE: mRNA
 27 <213> ORGANISM: Homo sapiens
 29 <220> FEATURE:
 30 <221> NAME/KEY: CDS
 31 <222> LOCATION: (433)..(1830)
 33 <400> SEQUENCE: 1
 34 gaattccggg ggtattggca gctgaggagt ggaggctggg cagctccgac tccctgacgc 60
 36 cagcgcgacc agatcaatcc aggctccagg agaaagcagg cgggcgggcg gagaaaggag 120
 38 aggccgagcg gctcaacccg ggccgaggct cggggagcgg agagtggcgc accgcccggc 180
 40 cgtccggacc cgggccgcga gaccccgctc gcccggccac tcgtgctccc gcacggacgg 240
 42 gcgcgccgcc aacccggtgc tgactgggtt acttttttaa acactaggaa tggtaatttc 300
 44 tactcttctg gacttcaaac taagaagtta aagagacttc tctgtaaata aacaaatctc 360
 46 ttctgctgtc cttttgcatt tggagacagc tttatttcac catatccaag gagtataact 420
 48 agtgctgtca tt atg aat gtg aca agt tta ttt tcc ttt aca agt cca gct 471
 49                Met Asn Val Thr Ser Leu Phe Ser Phe Thr Ser Pro Ala
 50                  1               5                  10
 52 gtg aag aga ctt ctt ggg tgg aaa cag ggc gat gaa gaa gaa aaa tgg   519
 53 Val Lys Arg Leu Leu Gly Trp Lys Gln Gly Asp Glu Glu Glu Lys Trp
 54      15                  20                  25
 56 gca gag aaa gct gtt gat gct ttg gtg aaa aaa ctg aag aaa aag aaa   567
 57 Ala Glu Lys Ala Val Asp Ala Leu Val Lys Lys Leu Lys Lys Lys Lys
 58  30                  35                  40                  45
 60 ggt gcc atg gag gaa ctg gaa aag gcc ttg agc tgc cca ggg caa ccg   615
```

Invalid response.

Per Sequence Rules, the only valid <2127 responses are: DNA, PRT, or RNA

For a combined DNA/RNA sequence, use <2127 DNA and explain in <2207-<2237 section.

Explain any modifications in <2207-<2237 section (on <2237 line)

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PATENT APPLICATION: US/10/571,511 TIME: 14:09:12

Input Set : A:\PTO.TS..txt
Output Set: N:\CRF4\03212006\J571511.raw

```
61 Gly Ala Met Glu Glu Leu Glu Lys Ala Leu Ser Cys Pro Gly Gln Pro
62                  50                  55                  60
64 agt aac tgt gtc acc att ccc cgc tct ctg gat ggc agg ctg caa gtc   663
65 Ser Asn Cys Val Thr Ile Pro Arg Ser Leu Asp Gly Arg Leu Gln Val
66              65                  70                  75
68 tcc cac cgg aag gga ctg cct cat gtc att tac tgc cgt gtg tgg cgc   711
69 Ser His Arg Lys Gly Leu Pro His Val Ile Tyr Cys Arg Val Trp Arg
70          80                  85                  90
72 tgg ccc gat ctt cag agc cac cat gaa cta aaa cca ctg gaa tgc tgt   759
73 Trp Pro Asp Leu Gln Ser His His Glu Leu Lys Pro Leu Glu Cys Cys
74      95                  100                 105
76 gag ttt cct ttt ggt tcc aag cag aag gag gtc tgc atc aat ccc tac   807
77 Glu Phe Pro Phe Gly Ser Lys Gln Lys Glu Val Cys Ile Asn Pro Tyr
78 110                 115                 120                 125
80 cac tat aag aga gta gaa agc cct gta ctt cct cct gtg ctg gtt cca   855
81 His Tyr Lys Arg Val Glu Ser Pro Val Leu Pro Pro Val Leu Val Pro
82                  130                 135                 140
84 aga cac agc gaa tat aat cct cag cac agc ctc tta gct cag ttc cgt   903
85 Arg His Ser Glu Tyr Asn Pro Gln His Ser Leu Leu Ala Gln Phe Arg
86              145                 150                 155
88 aac tta gga caa aat gag cct cac atg cca ctc aac gcc act ttt cca   951
89 Asn Leu Gly Gln Asn Glu Pro His Met Pro Leu Asn Ala Thr Phe Pro
90          160                 165                 170
92 gat tct ttc cag caa ccc aac agc cac ccg ttt cct cac tct ccc aat   999
93 Asp Ser Phe Gln Gln Pro Asn Ser His Pro Phe Pro His Ser Pro Asn
94      175                 180                 185
96 agc agt tac cca aac tct cct ggg agc agc agc agc acc tac cct cac   1047
97 Ser Ser Tyr Pro Asn Ser Pro Gly Ser Ser Ser Ser Thr Tyr Pro His
98 190                 195                 200                 205
100 tct ccc acc agc tca gac cca gga agc cct ttc cag atg cca gct gat   1095
101 Ser Pro Thr Ser Ser Asp Pro Gly Ser Pro Phe Gln Met Pro Ala Asp
102                 210                 215                 220
104 acg ccc cca cct gct tac ctg cct cct gaa gac ccc atg acc cag gat   1143
105 Thr Pro Pro Pro Ala Tyr Leu Pro Pro Glu Asp Pro Met Thr Gln Asp
106             225                 230                 235
108 ggc tct cag ccg atg gac aca aac atg atg gcg cct ccc ctg ccc tca   1191
109 Gly Ser Gln Pro Met Asp Thr Asn Met Met Ala Pro Pro Leu Pro Ser
110         240                 245                 250
112 gaa atc aac aga gga gat gtt cag gcg gtt gct tat gag gaa cca aaa   1239
113 Glu Ile Asn Arg Gly Asp Val Gln Ala Val Ala Tyr Glu Glu Pro Lys
114     255                 260                 265
116 cac tgg tgc tct att gtc tac tat gag ctc aac aat cgt gtg ggt gaa   1287
117 His Trp Cys Ser Ile Val Tyr Tyr Glu Leu Asn Asn Arg Val Gly Glu
118 270                 275                 280                 285
120 gcg ttc cat gcc tcc tcc aca agt gtg ttg gtg gat ggt ttc act gat   1335
121 Ala Phe His Ala Ser Ser Thr Ser Val Leu Val Asp Gly Phe Thr Asp
122                 290                 295                 300
124 cct tcc aac aat aag aac cgt ttc tgc ctt ggg ctg ctc tcc aat gtt   1383
125 Pro Ser Asn Asn Lys Asn Arg Phe Cys Leu Gly Leu Leu Ser Asn Val
```

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Input Set : A:\PTO.TS..txt
Output Set: N:\CRF4\03212006\J571511.raw

```
126             305                 310                 315
128 aac cgg aat tcc act att gaa aac acc agg cgg cat att gga aaa gga   1431
129 Asn Arg Asn Ser Thr Ile Glu Asn Thr Arg Arg His Ile Gly Lys Gly
130         320                 325                 330
132 gtt cat ctt tat tat gtt gga ggg gag gtg tat gcc gaa tgc ctt agt   1479
133 Val His Leu Tyr Tyr Val Gly Gly Glu Val Tyr Ala Glu Cys Leu Ser
134     335                 340                 345
136 gac agt agc atc ttt gtg caa agt cgg aac tgc aac tac cat cat gga   1527
137 Asp Ser Ser Ile Phe Val Gln Ser Arg Asn Cys Asn Tyr His His Gly
138 350                 355                 360                 365
140 ttt cat cct act act gtt tgc aag atc cct agt ggg tgt agt ctg aaa   1575
141 Phe His Pro Thr Thr Val Cys Lys Ile Pro Ser Gly Cys Ser Leu Lys
142                 370                 375                 380
144 att ttt aac aac caa gaa ttt gct cag tta ttg gca cag tct gtg aac   1623
145 Ile Phe Asn Asn Gln Glu Phe Ala Gln Leu Leu Ala Gln Ser Val Asn
146             385                 390                 395
148 cat gga ttt gag aca gtc tat gag ctt aca aaa atg tgt act ata cgt   1671
149 His Gly Phe Glu Thr Val Tyr Glu Leu Thr Lys Met Cys Thr Ile Arg
150         400                 405                 410
152 atg agc ttt gtg aag ggc tgg gga gca gaa tac cac cgc cag gat gtt   1719
153 Met Ser Phe Val Lys Gly Trp Gly Ala Glu Tyr His Arg Gln Asp Val
154     415                 420                 425
156 act agc acc ccc tgc tgg att gag ata cat ctg cac ggc ccc ctc cag   1767
157 Thr Ser Thr Pro Cys Trp Ile Glu Ile His Leu His Gly Pro Leu Gln
158 430                 435                 440                 445
160 tgg ctg gat aaa gtt ctt act caa atg ggt tca cct cat aat cct att   1815
161 Trp Leu Asp Lys Val Leu Thr Gln Met Gly Ser Pro His Asn Pro Ile
162                 450                 455                 460
164 tca tct gta tct taa atggccccag catctgcctc tggaaaacta ttgagccttg   1870
165 Ser Ser Val Ser
166             465
168 catgtacttg aaggatggat gagtcagaca cgattgagaa ctgacaaagg agccttgata 1930
170 atacttgacc tctgtgacca actgttggat tcagaaattt aaacaaaaaa aaaaaaaaaa 1990
173 <210> SEQ ID NO: 2
174 <211> LENGTH: 1970
E--> 175 <212> TYPE: mRNA
176 <213> ORGANISM: Homo sapiens
178 <220> FEATURE:
179 <221> NAME/KEY: CDS
180 <222> LOCATION: (283)..(1794)
182 <400> SEQUENCE: 2
183 aggaaacggt ttattaggag ggagtggtgg agctgggcca ggcaggaaga cgctggaata 60
185 agaaacattt ttgctccagc ccccatccca gtcccgggag gctgccgcgc cagctgcgcc 120
187 gagcgagccc ctccccggct ccagcccggt ccggggccgc gccggacccc agcccgccgt 180
189 ccagcgctgg cggtgcaact gcggccgcgc ggtggagggg aggtggcccc ggtccgccga 240
191 aggctagcgc cccgccaccc gcagagcggg cccagaggga cc atg acc ttg ggc    294
192                                                Met Thr Leu Gly
193                                                  1
195 tcc ccc agg aaa ggc ctt ctg atg ctg ctg atg gcc ttg gtg acc cag   342
```

same error

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Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
196 Ser Pro Arg Lys Gly Leu Leu Met Leu Leu Met Ala Leu Val Thr Gln
197   5                  10                  15                  20
199 gga gac cct gtg aag ccg tct cgg ggc ccg ctg gtg acc tgc acg tgt   390
200 Gly Asp Pro Val Lys Pro Ser Arg Gly Pro Leu Val Thr Cys Thr Cys
201                 25                  30                  35
203 gag agc cca cat tgc aag ggg cct acc tgc cgg ggg gcc tgg tgc aca   438
204 Glu Ser Pro His Cys Lys Gly Pro Thr Cys Arg Gly Ala Trp Cys Thr
205              40                  45                  50
207 gta gtg ctg gtg cgg gag gag ggg agg cac ccc cag gaa cat cgg ggc   486
208 Val Val Leu Val Arg Glu Glu Gly Arg His Pro Gln Glu His Arg Gly
209          55                  60                  65
211 tgc ggg aac ttg cac agg gag ctc tgc agg ggg cgc ccc acc gag ttc   534
212 Cys Gly Asn Leu His Arg Glu Leu Cys Arg Gly Arg Pro Thr Glu Phe
213      70                  75                  80
215 gtc aac cac tac tgc tgc gac agc cac ctc tgc aac cac aac gtg tcc   582
216 Val Asn His Tyr Cys Cys Asp Ser His Leu Cys Asn His Asn Val Ser
217  85                  90                  95                 100
219 ctg gtg ctg gag gcc acc caa cct cct tcg gag cag ccg gga aca gat   630
220 Leu Val Leu Glu Ala Thr Gln Pro Pro Ser Glu Gln Pro Gly Thr Asp
221                 105                 110                 115
223 ggc cag ctg gcc ctg atc ctg ggc ccc gtg ctg gcc ttg ctg gcc ctg   678
224 Gly Gln Leu Ala Leu Ile Leu Gly Pro Val Leu Ala Leu Leu Ala Leu
225              120                 125                 130
227 gtg gcc ctg ggt gtc ctg ggc ctg tgg cat gtc cga cgg agg cag gag   726
228 Val Ala Leu Gly Val Leu Gly Leu Trp His Val Arg Arg Arg Gln Glu
229          135                 140                 145
231 aag cag cgt ggc ctg cac agc gag ctg gga gag tcc agt ctc atc ctg   774
232 Lys Gln Arg Gly Leu His Ser Glu Leu Gly Glu Ser Ser Leu Ile Leu
233      150                 155                 160
235 aaa gca tct gag cag ggc gac acg atg ttg ggg gac ctc ctg gac agt   822
236 Lys Ala Ser Glu Gln Gly Asp Thr Met Leu Gly Asp Leu Leu Asp Ser
237 165                 170                 175                 180
239 gac tgc acc aca ggg agt ggc tca ggg ctc ccc ttc ctg gtg cag agg   870
240 Asp Cys Thr Thr Gly Ser Gly Ser Gly Leu Pro Phe Leu Val Gln Arg
241                 185                 190                 195
243 aca gtg gca cgg cag gtt gcc ttg gtg gag tgt gtg gga aaa ggc cgc   918
244 Thr Val Ala Arg Gln Val Ala Leu Val Glu Cys Val Gly Lys Gly Arg
245              200                 205                 210
247 tat ggc gaa gtg tgg cgg ggc ttg tgg cac ggt gag agt gtg gcc gtc   966
248 Tyr Gly Glu Val Trp Arg Gly Leu Trp His Gly Glu Ser Val Ala Val
249          215                 220                 225
251 aag atc ttc tcc tcg agg gat gaa cag tcc tgg ttc cgg gag act gag   1014
252 Lys Ile Phe Ser Ser Arg Asp Glu Gln Ser Trp Phe Arg Glu Thr Glu
253      230                 235                 240
255 atc tat aac aca gta ttg ctc aga cac gac aac atc cta ggc ttc atc   1062
256 Ile Tyr Asn Thr Val Leu Leu Arg His Asp Asn Ile Leu Gly Phe Ile
257 245                 250                 255                 260
259 gcc tca gac atg acc tcc cgc aac tcg agc acg cag ctg tgg ctc atc   1110
260 Ala Ser Asp Met Thr Ser Arg Asn Ser Ser Thr Gln Leu Trp Leu Ile
```

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PATENT APPLICATION: US/10/571,511 TIME: 14:09:12

Input Set : A:\PTO.TS..txt
Output Set: N:\CRF4\03212006\J571511.raw

```
261                 265                 270                 275
263 acg cac tac cac gag cac ggc tcc ctc tac gac ttt ctg cag aga cag   1158
264 Thr His Tyr His Glu His Gly Ser Leu Tyr Asp Phe Leu Gln Arg Gln
265             280                 285                 290
267 acg ctg gag ccc cat ctg gct ctg agg cta gct gtg tcc gcg gca tgc   1206
268 Thr Leu Glu Pro His Leu Ala Leu Arg Leu Ala Val Ser Ala Ala Cys
269         295                 300                 305
271 ggc ctg gcg cac ctg cac gtg gag atc ttc ggt aca cag ggc aaa cca   1254
272 Gly Leu Ala His Leu His Val Glu Ile Phe Gly Thr Gln Gly Lys Pro
273     310                 315                 320
275 gcc att gcc cac cgc gac ttc aag agc cgc aat gtg ctg gtc aag agc   1302
276 Ala Ile Ala His Arg Asp Phe Lys Ser Arg Asn Val Leu Val Lys Ser
277 325                 330                 335                 340
279 aac ctg cag tgt tgc atc gcc gac ctg ggc ctg gct gtg atg cac tca   1350
280 Asn Leu Gln Cys Cys Ile Ala Asp Leu Gly Leu Ala Val Met His Ser
281                 345                 350                 355
283 cag ggc agc gat tac ctg gac atc ggc aac aac ccg aga gtg ggc acc   1398
284 Gln Gly Ser Asp Tyr Leu Asp Ile Gly Asn Asn Pro Arg Val Gly Thr
285             360                 365                 370
287 aag cgg tac atg gca ccc gag gtg ctg gac gag cag atc cgc acg gac   1446
288 Lys Arg Tyr Met Ala Pro Glu Val Leu Asp Glu Gln Ile Arg Thr Asp
289         375                 380                 385
291 tgc ttt gag tcc tac aag tgg act gac atc tgg gcc ttt ggc ctg gtg   1494
292 Cys Phe Glu Ser Tyr Lys Trp Thr Asp Ile Trp Ala Phe Gly Leu Val
293     390                 395                 400
295 ctg tgg gag att gcc cgc cgg acc atc gtg aat ggc atc gtg gag gac   1542
296 Leu Trp Glu Ile Ala Arg Arg Thr Ile Val Asn Gly Ile Val Glu Asp
297 405                 410                 415                 420
299 tat aga cca ccc ttc tat gat gtg gtg ccc aat gac ccc agc ttt gag   1590
300 Tyr Arg Pro Pro Phe Tyr Asp Val Val Pro Asn Asp Pro Ser Phe Glu
301                 425                 430                 435
303 gac atg aag aag gtg gtg tgt gtg gat cag cag acc ccc acc atc cct   1638
304 Asp Met Lys Lys Val Val Cys Val Asp Gln Gln Thr Pro Thr Ile Pro
305             440                 445                 450
307 aac cgg ctg gct gca gac ccg gtc ctc tca ggc cta gct cag atg atg   1686
308 Asn Arg Leu Ala Ala Asp Pro Val Leu Ser Gly Leu Ala Gln Met Met
309         455                 460                 465
311 cgg gag tgc tgg tac cca aac ccc tct gcc cga ctc acc gcg ctg cgg   1734
312 Arg Glu Cys Trp Tyr Pro Asn Pro Ser Ala Arg Leu Thr Ala Leu Arg
313     470                 475                 480
315 atc aag aag aca cta caa aaa att agc aac agt cca gag aag cct aaa   1782
316 Ile Lys Lys Thr Leu Gln Lys Ile Ser Asn Ser Pro Glu Lys Pro Lys
317 485                 490                 495                 500
319 gtg att caa tag cccaggagca cctgattcct ttctgcctgc agggggctgg       1834
320 Val Ile Gln
322 gggggtgggg ggcagtggat ggtgccctat ctgggtagag gtagtgtgag tgtggtgtgt 1894
324 gctggggatg ggcagctgcg cctgcctgct cggcccccag cccacccagc caaaaataca 1954
326 gctgggctga aacctg                                               1970
329 <210> SEQ ID NO: 3
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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

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    330 <211> LENGTH: 1547
E--> 331 <212> TYPE: mRNA  same
    332 <213> ORGANISM: Homo sapiens
    334 <220> FEATURE:
    335 <221> NAME/KEY: CDS
    336 <222> LOCATION: (324)..(1514)
    338 <400> SEQUENCE: 3
    339 ggggacttct tgaacttgca gggagaataa cttgcgcacc ccactttgcg ccggtgcctt 60
    341 tgccccagcg gagcctgctt cgccatctcc gagccccacc gcccctccac tcctcggcct 120
    343 tgcccgacac tgagacgctg ttcccagcgt gaaaagagag actgcgcggc cggcacccgg 180
    345 gagaaggagg aggcaaagaa aaggaacgga cattcggtcc ttgcgccagg tcctttgacc 240
    347 agagttttc catgtggacg ctctttcaat ggacgtgtcc ccgcgtgctt cttagacgga 300
    349 ctgcggtctc ctaaaggtcg acc atg gtg gcc ggg acc cgc tgt ctt cta gcg 353
    350                          Met Val Ala Gly Thr Arg Cys Leu Leu Ala
    351                            1               5                  10
    353 ttg ctg ctt ccc cag gtc ctc ctg ggc ggc gcg gct ggc ctc gtt ccg   401
    354 Leu Leu Leu Pro Gln Val Leu Leu Gly Gly Ala Ala Gly Leu Val Pro
    355                  15                  20                  25
    357 gag ctg ggc cgc agg aag ttc gcg gcg gcg tcg tcg ggc cgc ccc tca   449
    358 Glu Leu Gly Arg Arg Lys Phe Ala Ala Ala Ser Ser Gly Arg Pro Ser
    359              30                  35                  40
    361 tcc cag ccc tct gac gag gtc ctg agc gag ttc gag ttg cgg ctg ctc   497
    362 Ser Gln Pro Ser Asp Glu Val Leu Ser Glu Phe Glu Leu Arg Leu Leu
    363          45                  50                  55
    365 agc atg ttc ggc ctg aaa cag aga ccc acc ccc agc agg gac gcc gtg   545
    366 Ser Met Phe Gly Leu Lys Gln Arg Pro Thr Pro Ser Arg Asp Ala Val
    367      60                  65                  70
    369 gtg ccc ccc tac atg cta gac ctg tat cgc agg cac tca ggt cag ccg   593
    370 Val Pro Pro Tyr Met Leu Asp Leu Tyr Arg Arg His Ser Gly Gln Pro
    371  75                  80                  85                  90
    373 ggc tca ccc gcc cca gac cac cgg ttg gag agg gca gcc agc cga gcc   641
    374 Gly Ser Pro Ala Pro Asp His Arg Leu Glu Arg Ala Ala Ser Arg Ala
    375                  95                 100                 105
    377 aac act gtg cgc agc ttc cac cat gaa gaa tct ttg gaa gaa cta cca   689
    378 Asn Thr Val Arg Ser Phe His His Glu Glu Ser Leu Glu Glu Leu Pro
    379              110                 115                 120
    381 gaa acg agt ggg aaa aca acc cgg aga ttc ttc ttt aat tta agt tct   737
    382 Glu Thr Ser Gly Lys Thr Thr Arg Arg Phe Phe Phe Asn Leu Ser Ser
    383          125                 130                 135
    385 atc ccc acg gag gag ttt atc acc tca gca gag ctt cag gtt ttc cga   785
    386 Ile Pro Thr Glu Glu Phe Ile Thr Ser Ala Glu Leu Gln Val Phe Arg
    387      140                 145                 150
    389 gaa cag atg caa gat gct tta gga aac aat agc agt ttc cat cac cga   833
    390 Glu Gln Met Gln Asp Ala Leu Gly Asn Asn Ser Ser Phe His His Arg
    391 155                 160                 165                 170
    393 att aat att tat gaa atc ata aaa cct gca aca gcc aac tcg aaa ttc   881
    394 Ile Asn Ile Tyr Glu Ile Ile Lys Pro Ala Thr Ala Asn Ser Lys Phe
    395                 175                 180                 185
    397 ccc gtg acc aga ctt ttg gac acc agg ttg gtg aat cag aat gca agc   929
```

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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
398 Pro Val Thr Arg Leu Leu Asp Thr Arg Leu Val Asn Gln Asn Ala Ser
399             190                 195                 200
401 agg tgg gaa agt ttt gat gtc acc ccc gct gtg atg cgg tgg act gca   977
402 Arg Trp Glu Ser Phe Asp Val Thr Pro Ala Val Met Arg Trp Thr Ala
403         205                 210                 215
405 cag gga cac gcc aac cat gga ttc gtg gtg gaa gtg gcc cac ttg gag   1025
406 Gln Gly His Ala Asn His Gly Phe Val Val Glu Val Ala His Leu Glu
407     220                 225                 230
409 gag aaa caa ggt gtc tcc aag aga cat gtt agg ata agc agg tct ttg   1073
410 Glu Lys Gln Gly Val Ser Lys Arg His Val Arg Ile Ser Arg Ser Leu
411 235                 240                 245                 250
413 cac caa gat gaa cac agc tgg tca cag ata agg cca ttg cta gta act   1121
414 His Gln Asp Glu His Ser Trp Ser Gln Ile Arg Pro Leu Leu Val Thr
415                 255                 260                 265
417 ttt ggc cat gat gga aaa ggg cat cct ctc cac aaa aga gaa aaa cgt   1169
418 Phe Gly His Asp Gly Lys Gly His Pro Leu His Lys Arg Glu Lys Arg
419             270                 275                 280
421 caa gcc aaa cac aaa cag cgg aaa cgc ctt aag tcc agc tgt aag aga   1217
422 Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg
423         285                 290                 295
425 cac cct ttg tac gtg gac ttc agt gac gtg ggg tgg aat gac tgg att   1265
426 His Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp Ile
427     300                 305                 310
429 gtg gct ccc ccg ggg tat cac gcc ttt tac tgc cac gga gaa tgc cct   1313
430 Val Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly Glu Cys Pro
431 315                 320                 325                 330
433 ttt cct ctg gct gat cat ctg aac tcc act aat cat gcc att gtt cag   1361
434 Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val Gln
435                 335                 340                 345
437 acg ttg gtc aac tct gtt aac tct aag att cct aag gca tgc tgt gtc   1409
438 Thr Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala Cys Cys Val
439             350                 355                 360
441 ccg aca gaa ctc agt gct atc tcg atg ctg tac ctt gac gag aat gaa   1457
442 Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu
443         365                 370                 375
445 aag gtt gta tta aag aac tat cag gac atg gtt gtg gag ggt tgt ggg   1505
446 Lys Val Val Leu Lys Asn Tyr Gln Asp Met Val Val Glu Gly Cys Gly
447     380                 385                 390
449 tgt cgc tag tacagcaaaa ttaaatacat aaatatatat ata                 1547
450 Cys Arg
451 395
454 <210> SEQ ID NO: 4
455 <211> LENGTH: 1999
E--> 456 <212> TYPE: mRNA
457 <213> ORGANISM: Homo sapiens
459 <220> FEATURE:
460 <221> NAME/KEY: CDS
461 <222> LOCATION: (478)..(1704)
463 <400> SEQUENCE: 4
```

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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
464 gagggagggg ccgccgggga agaggaggag gaaggaaaga aagaaagcga gggagggaaa 60
466 gaggaggaag gaagatgcga gaaggcagag gaggagggag ggagggaagg agcgcggagc 120
468 ccggcccgga agctaggtga gtgtggcatc cgagctgagg gacgcgagcc tgagacgccg 180
470 ctgctgctcc ggctgagtat ctagcttgtc tccccgatgg gattcccgtc caagctatct 240
472 cgagcctgca gcgccacagt ccccggccct cgcccaggtt cactgcaacc gttcagaggt 300
474 ccccaggagc tgctgctggc gagcccgcta ctgcagggac ctatggagcc attccgtagt 360
476 gccatcccga gcaacgcact gctgcagctt ccctgagcct ttccagcaag tttgttcaag 420
478 attggctgtc aagaatcatg gactgttatt atatgccttg ttttctgtca agacacc    477
480 atg att cct ggt aac cga atg ctg atg gtc gtt tta tta tgc caa gtc   525
481 Met Ile Pro Gly Asn Arg Met Leu Met Val Val Leu Leu Cys Gln Val
482   1               5                  10                  15
484 ctg cta gga ggc gcg agc cat gct agt ttg ata cct gag acg ggg aag   573
485 Leu Leu Gly Gly Ala Ser His Ala Ser Leu Ile Pro Glu Thr Gly Lys
486             20                  25                  30
488 aaa aaa gtc gcc gag att cag ggc cac gcg gga gga cgc cgc tca ggg   621
489 Lys Lys Val Ala Glu Ile Gln Gly His Ala Gly Gly Arg Arg Ser Gly
490         35                  40                  45
492 cag agc cat gag ctc ctg cgg gac ttc gag gcg aca ctt ctg cag atg   669
493 Gln Ser His Glu Leu Leu Arg Asp Phe Glu Ala Thr Leu Leu Gln Met
494     50                  55                  60
496 ttt ggg ctg cgc cgc cgc ccg cag cct agc aag agt gcc gtc att ccg   717
497 Phe Gly Leu Arg Arg Arg Pro Gln Pro Ser Lys Ser Ala Val Ile Pro
498 65                  70                  75                  80
500 gac tac atg cgg gat ctt tac cgg ctt cag tct ggg gag gag gag gaa   765
501 Asp Tyr Met Arg Asp Leu Tyr Arg Leu Gln Ser Gly Glu Glu Glu Glu
502                 85                  90                  95
504 gag cag atc cac agc act ggt ctt gag tat cct gag cgc ccg gcc agc   813
505 Glu Gln Ile His Ser Thr Gly Leu Glu Tyr Pro Glu Arg Pro Ala Ser
506             100                 105                 110
508 cgg gcc aac acc gtg agg agc ttc cac cac gaa gaa cat ctg gag aac   861
509 Arg Ala Asn Thr Val Arg Ser Phe His His Glu Glu His Leu Glu Asn
510         115                 120                 125
512 atc cca ggg acc agt gaa aac tct gct ttt cgt ttc ctc ttt aac ctc   909
513 Ile Pro Gly Thr Ser Glu Asn Ser Ala Phe Arg Phe Leu Phe Asn Leu
514     130                 135                 140
516 agc agc atc cct gag aac gag gcg atc tcc tct gca gag ctt cgg ctc   957
517 Ser Ser Ile Pro Glu Asn Glu Ala Ile Ser Ser Ala Glu Leu Arg Leu
518 145                 150                 155                 160
520 ttc cgg gag cag gtg gac cag ggc cct gat tgg gaa agg ggc ttc cac  1005
521 Phe Arg Glu Gln Val Asp Gln Gly Pro Asp Trp Glu Arg Gly Phe His
522                 165                 170                 175
524 cgt ata aac att tat gag gtt atg aag ccc cca gca gaa gtg gtg cct  1053
525 Arg Ile Asn Ile Tyr Glu Val Met Lys Pro Pro Ala Glu Val Val Pro
526             180                 185                 190
528 ggg cac ctc atc aca cga cta ctg gac acg aga ctg gtc cac cac aat  1101
529 Gly His Leu Ile Thr Arg Leu Leu Asp Thr Arg Leu Val His His Asn
530         195                 200                 205
532 gtg aca cgg tgg gaa act ttt gat gtg agc cct gcg gtc ctt cgc tgg  1149
533 Val Thr Arg Trp Glu Thr Phe Asp Val Ser Pro Ala Val Leu Arg Trp
```

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PATENT APPLICATION: US/10/571,511 TIME: 14:09:12

Input Set : A:\PTO.TS..txt
Output Set: N:\CRF4\03212006\J571511.raw

```
534     210                 215                 220
536 acc cgg gag aag cag cca aac tat ggg cta gcc att gag gtg act cac   1197
537 Thr Arg Glu Lys Gln Pro Asn Tyr Gly Leu Ala Ile Glu Val Thr His
538 225                 230                 235                 240
540 ctc cat cag act cgg acc cac cag ggc cag cat gtc agg att agc cga   1245
541 Leu His Gln Thr Arg Thr His Gln Gly Gln His Val Arg Ile Ser Arg
542                 245                 250                 255
544 tcg tta cct caa ggg agt ggg aat tgg gcc cag ctc cgg ccc ctc ctg   1293
545 Ser Leu Pro Gln Gly Ser Gly Asn Trp Ala Gln Leu Arg Pro Leu Leu
546             260                 265                 270
548 gtc acc ttt ggc cat gat ggc cgg ggc cat gcc ttg acc cga cgc cgg   1341
549 Val Thr Phe Gly His Asp Gly Arg Gly His Ala Leu Thr Arg Arg Arg
550         275                 280                 285
552 agg gcc aag cgt agc cct aag cat cac tca cag cgg gcc agg aag aag   1389
553 Arg Ala Lys Arg Ser Pro Lys His His Ser Gln Arg Ala Arg Lys Lys
554     290                 295                 300
556 aat aag aac tgc cgg cgc cac tcg ctc tat gtg gac ttc agc gat gtg   1437
557 Asn Lys Asn Cys Arg Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val
558 305                 310                 315                 320
560 ggc tgg aat gac tgg att gtg gcc cca cca ggc tac cag gcc ttc tac   1485
561 Gly Trp Asn Asp Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr
562                 325                 330                 335
564 tgc cat ggg gac tgc ccc ttt cca ctg gct gac cac ctc aac tca acc   1533
565 Cys His Gly Asp Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr
566             340                 345                 350
568 aac cat gcc att gtg cag acc ctg gtc aat tct gtc aat tcc agt atc   1581
569 Asn His Ala Ile Val Gln Thr Leu Val Asn Ser Val Asn Ser Ser Ile
570         355                 360                 365
572 ccc aaa gcc tgt tgt gtg ccc act gaa ctg agt gcc atc tcc atg ctg   1629
573 Pro Lys Ala Cys Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu
574     370                 375                 380
576 tac ctg gat gag tat gat aag gtg gta ctg aaa aat tat cag gag atg   1677
577 Tyr Leu Asp Glu Tyr Asp Lys Val Val Leu Lys Asn Tyr Gln Glu Met
578 385                 390                 395                 400
580 gta gta gag gga tgt ggg tgc cgc tga gatcaggcag tccttgagga        1724
581 Val Val Glu Gly Cys Gly Cys Arg
582                 405
584 tagacagata tacacaccac acacacacac cacatacacc acacacacac gttcccatcc 1784
586 actcacccac acactacaca gactgcttcc ttatagctgg acttttattt aaaaaaaaaa 1844
588 aaaaaaaaat ggaaaaaatc cctaaacatt caccttgacc ttatttatga ctttacgtgc 1904
590 aaatgttttg accatattga tcatatattt tgacaaaata tatttataac tacgtattaa 1964
592 aagaaaaaaa taaaatgagt cattatttta aaggt                           1999
763 <210> SEQ ID NO: 19
764 <211> LENGTH: 4978
E--> 765 <212> TYPE: mRNA
766 <213> ORGANISM: Homo sapiens
768 <220> FEATURE:
769 <221> NAME/KEY: CDS
770 <222> LOCATION: (241)..(2553)
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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
772 <400> SEQUENCE: 19
773 ggtttccgga gctgcggcgg cgcagactgg gaggggggagc cgggggttcc gacgtcgcag 60
775 ccgagggaac aagccccaac cggatcctgg acaggcaccc cggcttggcg ctgtctctcc 120
777 ccctcggctc ggagaggccc ttcggcctga gggagcctcg ccgcccgtcc ccggcacacg 180
779 cgcagccccg gcctctcggc ctctgccgga gaaacagttg ggacccctga ttttagcagg 240
781 atg gcc caa tgg aat cag cta cag cag ctt gac aca cgg tac ctg gag   288
782 Met Ala Gln Trp Asn Gln Leu Gln Gln Leu Asp Thr Arg Tyr Leu Glu
783   1               5                  10                  15
785 cag ctc cat cag ctc tac agt gac agc ttc cca atg gag ctg cgg cag   336
786 Gln Leu His Gln Leu Tyr Ser Asp Ser Phe Pro Met Glu Leu Arg Gln
787              20                  25                  30
789 ttt ctg gcc cct tgg att gag agt caa gat tgg gca tat gcg gcc agc   384
790 Phe Leu Ala Pro Trp Ile Glu Ser Gln Asp Trp Ala Tyr Ala Ala Ser
791          35                  40                  45
793 aaa gaa tca cat gcc act ttg gtg ttt cat aat ctc ctg gga gag att   432
794 Lys Glu Ser His Ala Thr Leu Val Phe His Asn Leu Leu Gly Glu Ile
795      50                  55                  60
797 gac cag cag tat agc cgc ttc ctg caa gag tcg aat gtt ctc tat cag   480
798 Asp Gln Gln Tyr Ser Arg Phe Leu Gln Glu Ser Asn Val Leu Tyr Gln
799  65                  70                  75                  80
801 cac aat cta cga aga atc aag cag ttt ctt cag agc agg tat ctt gag   528
802 His Asn Leu Arg Arg Ile Lys Gln Phe Leu Gln Ser Arg Tyr Leu Glu
803                  85                  90                  95
805 aag cca atg gag att gcc cgg att gtg gcc cgg tgc ctg tgg gaa gaa   576
806 Lys Pro Met Glu Ile Ala Arg Ile Val Ala Arg Cys Leu Trp Glu Glu
807             100                 105                 110
809 tca cgc ctt cta cag act gca gcc act gcg gcc cag caa ggg ggc cag   624
810 Ser Arg Leu Leu Gln Thr Ala Ala Thr Ala Ala Gln Gln Gly Gly Gln
811         115                 120                 125
813 gcc aac cac ccc aca gca gcc gtg gtg acg gag aag cag cag atg ctg   672
814 Ala Asn His Pro Thr Ala Ala Val Val Thr Glu Lys Gln Gln Met Leu
815     130                 135                 140
817 gag cag cac ctt cag gat gtc cgg aag aga gtg cag gat cta gaa cag   720
818 Glu Gln His Leu Gln Asp Val Arg Lys Arg Val Gln Asp Leu Glu Gln
819 145                 150                 155                 160
821 aaa atg aaa gtg gta gag aat ctc cag gat gac ttt gat ttc aac tat   768
822 Lys Met Lys Val Val Glu Asn Leu Gln Asp Asp Phe Asp Phe Asn Tyr
823                 165                 170                 175
825 aaa acc ctc aag agt caa gga gac atg caa gat ctg aat gga aac aac   816
826 Lys Thr Leu Lys Ser Gln Gly Asp Met Gln Asp Leu Asn Gly Asn Asn
827             180                 185                 190
829 cag tca gtg acc agg cag aag atg cag cag ctg gaa cag atg ctc act   864
830 Gln Ser Val Thr Arg Gln Lys Met Gln Gln Leu Glu Gln Met Leu Thr
831         195                 200                 205
833 gcg ctg gac cag atg cgg aga agc atc gtg agt gag ctg gcg ggg ctt   912
834 Ala Leu Asp Gln Met Arg Arg Ser Ile Val Ser Glu Leu Ala Gly Leu
835     210                 215                 220
837 ttg tca gcg atg gag tac gtg cag aaa act ctc acg gac gag gag ctg   960
838 Leu Ser Ala Met Glu Tyr Val Gln Lys Thr Leu Thr Asp Glu Glu Leu
```

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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
839 225                 230                 235                 240
841 gct gac tgg aag agg cgg caa cag att gcc tgc att gga ggc ccg ccc   1008
842 Ala Asp Trp Lys Arg Arg Gln Gln Ile Ala Cys Ile Gly Gly Pro Pro
843                 245                 250                 255
845 aac atc tgc cta gat cgg cta gaa aac tgg ata acg tca tta gca gaa   1056
846 Asn Ile Cys Leu Asp Arg Leu Glu Asn Trp Ile Thr Ser Leu Ala Glu
847             260                 265                 270
849 tct caa ctt cag acc cgt caa caa att aag aaa ctg gag gag ttg cag   1104
850 Ser Gln Leu Gln Thr Arg Gln Gln Ile Lys Lys Leu Glu Glu Leu Gln
851         275                 280                 285
853 caa aaa gtt tcc tac aaa ggg gac ccc att gta cag cac cgg ccg atg   1152
854 Gln Lys Val Ser Tyr Lys Gly Asp Pro Ile Val Gln His Arg Pro Met
855     290                 295                 300
857 ctg gag gag aga atc gtg gag ctg ttt aga aac tta atg aaa agt gcc   1200
858 Leu Glu Glu Arg Ile Val Glu Leu Phe Arg Asn Leu Met Lys Ser Ala
859 305                 310                 315                 320
861 ttt gtg gtg gag cgg cag ccc tgc atg ccc atg cat cct gac cgg ccc   1248
862 Phe Val Val Glu Arg Gln Pro Cys Met Pro Met His Pro Asp Arg Pro
863                 325                 330                 335
865 ctc gtc atc aag acc ggc gtc cag ttc act act aaa gtc agg ttg ctg   1296
866 Leu Val Ile Lys Thr Gly Val Gln Phe Thr Thr Lys Val Arg Leu Leu
867             340                 345                 350
869 gtc aaa ttc cct gag ttg aat tat cag ctt aaa att aaa gtg tgc att   1344
870 Val Lys Phe Pro Glu Leu Asn Tyr Gln Leu Lys Ile Lys Val Cys Ile
871         355                 360                 365
873 gac aaa gac tct ggg gac gtt gca gct ctc aga gga tcc cgg aaa ttt   1392
874 Asp Lys Asp Ser Gly Asp Val Ala Ala Leu Arg Gly Ser Arg Lys Phe
875     370                 375                 380
877 aac att ctg ggc aca aac aca aaa gtg atg aac atg gaa gaa tcc aac   1440
878 Asn Ile Leu Gly Thr Asn Thr Lys Val Met Asn Met Glu Glu Ser Asn
879 385                 390                 395                 400
881 aac ggc agc ctc tct gca gaa ttc aaa cac ttg acc ctg agg gag cag   1488
882 Asn Gly Ser Leu Ser Ala Glu Phe Lys His Leu Thr Leu Arg Glu Gln
883                 405                 410                 415
885 aga tgt ggg aat ggg ggc cga gcc aat tgt gat gct tcc ctg att gtg   1536
886 Arg Cys Gly Asn Gly Gly Arg Ala Asn Cys Asp Ala Ser Leu Ile Val
887             420                 425                 430
889 act gag gag ctg cac ctg atc acc ttt gag acc gag gtg tat cac caa   1584
890 Thr Glu Glu Leu His Leu Ile Thr Phe Glu Thr Glu Val Tyr His Gln
891         435                 440                 445
893 ggc ctc aag att gac cta gag acc cac tcc ttg cca gtt gtg gtg atc   1632
894 Gly Leu Lys Ile Asp Leu Glu Thr His Ser Leu Pro Val Val Val Ile
895     450                 455                 460
897 tcc aac atc tgt cag atg cca aat gcc tgg gcg tcc atc ctg tgg tac   1680
898 Ser Asn Ile Cys Gln Met Pro Asn Ala Trp Ala Ser Ile Leu Trp Tyr
899 465                 470                 475                 480
901 aac atg ctg acc aac aat ccc aag aat gta aac ttt ttt acc aag ccc   1728
902 Asn Met Leu Thr Asn Asn Pro Lys Asn Val Asn Phe Phe Thr Lys Pro
903                 485                 490                 495
```

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Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
905 cca att gga acc tgg gat caa gtg gcc gag gtc ctg agc tgg cag ttc   1776
906 Pro Ile Gly Thr Trp Asp Gln Val Ala Glu Val Leu Ser Trp Gln Phe
907             500                 505                 510
909 tcc tcc acc acc aag cga gga ctg agc atc gag cag ctg act aca ctg   1824
910 Ser Ser Thr Thr Lys Arg Gly Leu Ser Ile Glu Gln Leu Thr Thr Leu
911         515                 520                 525
913 gca gag aaa ctc ttg gga cct ggt gtg aat tat tca ggg tgt cag atc   1872
914 Ala Glu Lys Leu Leu Gly Pro Gly Val Asn Tyr Ser Gly Cys Gln Ile
915     530                 535                 540
917 aca tgg gct aaa ttt tgc aaa gaa aac atg gct ggc aag ggc ttc tcc   1920
918 Thr Trp Ala Lys Phe Cys Lys Glu Asn Met Ala Gly Lys Gly Phe Ser
919 545                 550                 555                 560
921 ttc tgg gtc tgg ctg gac aat atc att gac ctt gtg aaa aag tac atc   1968
922 Phe Trp Val Trp Leu Asp Asn Ile Ile Asp Leu Val Lys Lys Tyr Ile
923                 565                 570                 575
925 ctg gcc ctt tgg aac gaa ggg tac atc atg ggc ttt atc agt aag gag   2016
926 Leu Ala Leu Trp Asn Glu Gly Tyr Ile Met Gly Phe Ile Ser Lys Glu
927             580                 585                 590
929 cgg gag cgg gcc atc ttg agc act aag cct cca ggc acc ttc ctg cta   2064
930 Arg Glu Arg Ala Ile Leu Ser Thr Lys Pro Pro Gly Thr Phe Leu Leu
931         595                 600                 605
933 aga ttc agt gaa agc agc aaa gaa gga ggc gtc act ttc act tgg gtg   2112
934 Arg Phe Ser Glu Ser Ser Lys Glu Gly Gly Val Thr Phe Thr Trp Val
935     610                 615                 620
937 gag aag gac atc agc ggt aag acc cag atc cag tcc gtg gaa cca tac   2160
938 Glu Lys Asp Ile Ser Gly Lys Thr Gln Ile Gln Ser Val Glu Pro Tyr
939 625                 630                 635                 640
941 aca aag cag cag ctg aac aac atg tca ttt gct gaa atc atc atg ggc   2208
942 Thr Lys Gln Gln Leu Asn Asn Met Ser Phe Ala Glu Ile Ile Met Gly
943                 645                 650                 655
945 tat aag atc atg gat gct acc aat atc ctg gtg tct cca ctg gtc tat   2256
946 Tyr Lys Ile Met Asp Ala Thr Asn Ile Leu Val Ser Pro Leu Val Tyr
947             660                 665                 670
949 ctc tat cct gac att ccc aag gag gag gca ttc gga aag tat tgt cgg   2304
950 Leu Tyr Pro Asp Ile Pro Lys Glu Glu Ala Phe Gly Lys Tyr Cys Arg
951         675                 680                 685
953 cca gag agc cag gag cat cct gaa gct gac cca ggt agc gct gcc cca   2352
954 Pro Glu Ser Gln Glu His Pro Glu Ala Asp Pro Gly Ser Ala Ala Pro
955     690                 695                 700
957 tac ctg aag acc aag ttt atc tgt gtg aca cca acg acc tgc agc aat   2400
958 Tyr Leu Lys Thr Lys Phe Ile Cys Val Thr Pro Thr Thr Cys Ser Asn
959 705                 710                 715                 720
961 acc att gac ctg ccg atg tcc ccc cgc act tta gat tca ttg atg cag   2448
962 Thr Ile Asp Leu Pro Met Ser Pro Arg Thr Leu Asp Ser Leu Met Gln
963                 725                 730                 735
965 ttt gga aat aat ggt gaa ggt gct gaa ccc tca gca gga ggg cag ttt   2496
966 Phe Gly Asn Asn Gly Glu Gly Ala Glu Pro Ser Ala Gly Gly Gln Phe
967             740                 745                 750
969 gag tcc ctc acc ttt gac atg gag ttg acc tcg gag tgc gct acc tcc   2544
```

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PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

970 Glu Ser Leu Thr Phe Asp Met Glu Leu Thr Ser Glu Cys Ala Thr Ser
971 755 760 765
973 ccc atg tga ggagctgaga acggaagctg cagaaagata cgactgaggc 2593
974 Pro Met
975 770
977 gcctacctgc attctgccac ccctcacaca gccaaacccc agatcatctg aaactactaa 2653
979 ctttgtggtt ccagattttt tttaatctcc tacttctgct atctttgagc aatctgggca 2713
981 cttttaaaaa tagagaaatg agtgaatgtg ggtgatctgc ttttatctaa atgcaaataa 2773
983 ggatgtgttc tctgagaccc atgatcaggg gatgtggcgg ggggtggcta gagggagaaa 2833
985 aaggaaatgt cttgtgttgt tttgttcccc tgccctcctt tctcagcagc tttttgttat 2893
987 tgttgttgtt gttcttagac aagtgcctcc tggtgcctgc ggcatccttc tgcctgtttc 2953
989 tgtaagcaaa tgccacaggc cacctatagc tacatactcc tggcattgca ctttttaacc 3013
991 ttgctgacat ccaaatagaa gataggacta tctaagccct aggtttcttt ttaaattaag 3073
993 aaataataac aattaaaggg caaaaaacac tgtatcagca tagcctttct gtatttaaga 3133
995 aacttaagca gccgggcatg gtggctcacg cctgtaatcc cagcactttg ggaggccgag 3193
997 gcggatcata aggtcaggag atcaagacca tcctggctaa cacggtgaaa ccccgtctct 3253
999 actaaaagta caaaaaatta gctgggtgtg gtggtgggcg cctgtagtcc cagctactcg 3313
1001 ggaggctgag gcaggagaat cgcttgaacc tgagaggcgg aggttgcagt gagccaaaat 3373
1003 tgcaccactg cacactgcac tccatcctgg gcgacagtct gagactctgt ctcaaaaaaa 3433
1005 aaaaaaaaaa aaagaaactt cagttaacag cctccttggt gctttaagca ttcagcttcc 3493
1007 ttcaggctgg taatttatat aatccctgaa acgggcttca ggtcaaaccc ttaagacatc 3553
1009 tgaagctgca acctggcctt tggtgttgaa ataggaaggt ttaaggagaa tctaagcatt 3613
1011 ttagactttt ttttataaat agacttattt tcctttgtaa tgtattggcc ttttagtgag 3673
1013 taaggctggg cagagggtgc ttacaacctt gactcccttt ctccctggac ttgatctgct 3733
1015 gtttcagagg ctaggttgtt tctgtgggtg ccttatcagg gctgggatac ttctgattct 3793
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1019 tccttgcgtg tctaaaggtc cctcatcctg tttgttttag gaatcctggt ctcaggacct 3913
1021 catggaagaa gaggggggaga gagttacagg ttggacatga tgcacactat ggggccccag 3973
1023 cgacgtgtct ggttgagctc agggaatatg gttcttagcc agtttcttgg tgatatccag 4033
1025 tggcacttgt aatggcgtct tcattcagtt catgcagggc aaaggcttac tgataaactt 4093
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1029 tgctggggcc ccacaggtga ggcagaacag ctagagggcc tccccgcctg cccgccttgg 4213
1031 ctggctagct cgcctctcct gtgcgtatgg gaacacctag cacgtgctgg atgggctgcc 4273
1033 tctgactcag aggcatggcc ggatttggca actcaaaacc accttgcctc agctgatcag 4333
1035 agtttctgtg gaattctgtt tgttaaatca aattagctgg tctctgaatt aaggggggaga 4393
1037 cgaccttctc taagatgaac agggttcgcc ccagtcctcc tgcctggaga cagttgatgt 4453
1039 gtcatgcaga gctcttactt ctccagcaac actcttcagt acataataag cttaactgat 4513
1041 aaacagaata tttagaaagg tgagacttgg gcttaccatt gggtttaaat catagggacc 4573
1043 tagggcgagg gttcagggct tctctggagc agatattgtc aagttcatgg ccttaggtag 4633
1045 catgtatctg gtcttaactc tgattgtagc aaaagttctg agaggagctg agccctgttg 4693
1047 tggcccatta aagaacaggg tcctcaggcc ctgcccgctt cctgtccact gccccctccc 4753
1049 catccccagc ccagccgagg gaatcccgtg ggttgcttac ctacctataa ggtggtttat 4813
1051 aagctgctgt cctggccact gcattcaaat tccaatgtgt acttcatagt gtaaaaattt 4873
1053 atattattgt gaggtttttt gtctttttt ttttttttt tttttggtat attgctgtat 4933
1055 ctactttaac ttccagaaat aaacgttata taggaaccgt aaaaa 4978
1058 <210> SEQ ID NO: 20
1059 <211> LENGTH: 3631
E--> 1060 **<212> TYPE: mRNA**
1061 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING DATE: 03/21/2006
PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
1063 <220> FEATURE:
1064 <221> NAME/KEY: CDS
1065 <222> LOCATION: (549)..(2147)
1067 <400> SEQUENCE: 20
1068 gcggccgctg cagagattgg aatccgcctg ccgggcttgg cgaaggagaa gggaggaggc 60
1070 aggagcgagg agggaggagg gccaagggcg ggcaggaagg cttaggctcg gcgcgtccgt 120
1072 ccgcgcgcgg cgaagatcgc acggcccgat cgaggggcga ccgggtcggg gccgctgcac 180
1074 gccaagggcg aaggccgatt cgggccccac ttcgccccgg cggctcgccg cgcccacccg 240
1076 ctccgcgccg agggctggag gatgcgttcc ctggggtccg gacttatgaa aatatgcatc 300
1078 agtttaatac tgtcttggaa ttcatgagat ggaagcatag gtcaaagctg tttggagaaa 360
1080 atcagaagta cagttttatc tagccacatc ttggaggagt cgtaagaaag cagtgggagt 420
1082 tgaagtcatt gtcaagtgct tgcgatcttt tacaagaaaa tctcactgaa tgatagtcat 480
1084 ttaaattggt gaagtagcaa gaccaattat taaaggtgac agtacacagg aaacattaca 540
1086 attgaaca atg cct cag cta tac att tac atc aga tta ttg gga gcc tat  590
1087          Met Pro Gln Leu Tyr Ile Tyr Ile Arg Leu Leu Gly Ala Tyr
1088            1               5                  10
1090 ttg ttc atc att tct cgt gtt caa gga cag aat ctg gat agt atg ctt   638
1091 Leu Phe Ile Ile Ser Arg Val Gln Gly Gln Asn Leu Asp Ser Met Leu
1092  15                  20                  25                  30
1094 cat ggc act ggg atg aaa tca gac tcc gac cag aaa aag tca gaa aat   686
1095 His Gly Thr Gly Met Lys Ser Asp Ser Asp Gln Lys Lys Ser Glu Asn
1096                  35                  40                  45
1098 gga gta acc tta gca cca gag gat acc ttg cct ttt tta aag tgc tat   734
1099 Gly Val Thr Leu Ala Pro Glu Asp Thr Leu Pro Phe Leu Lys Cys Tyr
1100              50                  55                  60
1102 tgc tca ggg cac tgt cca gat gat gct att aat aac aca tgc ata act   782
1103 Cys Ser Gly His Cys Pro Asp Asp Ala Ile Asn Asn Thr Cys Ile Thr
1104          65                  70                  75
1106 aat gga cat tgc ttt gcc atc ata gaa gaa gat gac cag gga gaa acc   830
1107 Asn Gly His Cys Phe Ala Ile Ile Glu Glu Asp Asp Gln Gly Glu Thr
1108      80                  85                  90
1110 aca tta gct tca ggg tgt atg aaa tat gaa gga tct gat ttt cag tgc   878
1111 Thr Leu Ala Ser Gly Cys Met Lys Tyr Glu Gly Ser Asp Phe Gln Cys
1112  95                  100                 105                 110
1114 aaa gat tct cca aaa gcc cag cta cgc cgg aca ata gaa tgt tgt cgg   926
1115 Lys Asp Ser Pro Lys Ala Gln Leu Arg Arg Thr Ile Glu Cys Cys Arg
1116                  115                 120                 125
1118 acc aat tta tgt aac cag tat ttg caa ccc aca ctg ccc cct gtt gtc   974
1119 Thr Asn Leu Cys Asn Gln Tyr Leu Gln Pro Thr Leu Pro Pro Val Val
1120              130                 135                 140
1122 ata ggt ccg ttt ttt gat ggc agc att cga tgg ctg gtt ttg ctc att   1022
1123 Ile Gly Pro Phe Phe Asp Gly Ser Ile Arg Trp Leu Val Leu Leu Ile
1124          145                 150                 155
1126 tct atg gct gtc tgc ata att gct atg atc atc ttc tcc agc tgc ttt   1070
1127 Ser Met Ala Val Cys Ile Ile Ala Met Ile Ile Phe Ser Ser Cys Phe
1128      160                 165                 170
1130 tgt tac aaa cat tat tgc aag agc atc tca agc aga cgt cgt tac aat   1118
1131 Cys Tyr Lys His Tyr Cys Lys Ser Ile Ser Ser Arg Arg Arg Tyr Asn
1132 175                 180                 185                 190
```

RAW SEQUENCE LISTING DATE: 03/21/2006
PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
1134 cgt gat ttg gaa cag gat gaa gca ttt att cca gtt gga gaa tca cta   1166
1135 Arg Asp Leu Glu Gln Asp Glu Ala Phe Ile Pro Val Gly Glu Ser Leu
1136                 195                 200                 205
1138 aaa gac ctt att gac cag tca caa agt tct ggt agt ggg tct gga cta   1214
1139 Lys Asp Leu Ile Asp Gln Ser Gln Ser Ser Gly Ser Gly Ser Gly Leu
1140             210                 215                 220
1142 cct tta ttg gtt cag cga act att gcc aaa cag att cag atg gtc cgg   1262
1143 Pro Leu Leu Val Gln Arg Thr Ile Ala Lys Gln Ile Gln Met Val Arg
1144         225                 230                 235
1146 caa gtt ggt aaa ggc cga tat gga gaa gta tgg atg ggc aaa tgg cgt   1310
1147 Gln Val Gly Lys Gly Arg Tyr Gly Glu Val Trp Met Gly Lys Trp Arg
1148     240                 245                 250
1150 ggc gaa aaa gtg gcg gtg aaa gta ttc ttt acc act gaa gaa gcc agc   1358
1151 Gly Glu Lys Val Ala Val Lys Val Phe Phe Thr Thr Glu Glu Ala Ser
1152 255                 260                 265                 270
1154 tgg ttt cga gaa aca gaa atc tac caa act gtg cta atg cgc cat gaa   1406
1155 Trp Phe Arg Glu Thr Glu Ile Tyr Gln Thr Val Leu Met Arg His Glu
1156                 275                 280                 285
1158 aac ata ctt ggt ttc ata gcg gca gac att aaa ggt aca ggt tcc tgg   1454
1159 Asn Ile Leu Gly Phe Ile Ala Ala Asp Ile Lys Gly Thr Gly Ser Trp
1160             290                 295                 300
1162 act cag ctc tat ttg att act gat tac cat gaa aat gga tct ctc tat   1502
1163 Thr Gln Leu Tyr Leu Ile Thr Asp Tyr His Glu Asn Gly Ser Leu Tyr
1164         305                 310                 315
1166 gac ttc ctg aaa tgt gct aca ctg gac acc aga gcc ctg ctt aaa ttg   1550
1167 Asp Phe Leu Lys Cys Ala Thr Leu Asp Thr Arg Ala Leu Leu Lys Leu
1168     320                 325                 330
1170 gct tat tca gct gcc tgt ggt ctg tgc cac ctg cac aca gaa att tat   1598
1171 Ala Tyr Ser Ala Ala Cys Gly Leu Cys His Leu His Thr Glu Ile Tyr
1172 335                 340                 345                 350
1174 ggc acc caa gga aag ccc gca att gct cat cga gac cta aag agc aaa   1646
1175 Gly Thr Gln Gly Lys Pro Ala Ile Ala His Arg Asp Leu Lys Ser Lys
1176                 355                 360                 365
1178 aac atc ctc atc aag aaa aat ggg agt tgc tgc att gct gac ctg ggc   1694
1179 Asn Ile Leu Ile Lys Lys Asn Gly Ser Cys Cys Ile Ala Asp Leu Gly
1180             370                 375                 380
1182 ctt gct gtt aaa ttc aac agt gac aca aat gaa gtt gat gtg ccc ttg   1742
1183 Leu Ala Val Lys Phe Asn Ser Asp Thr Asn Glu Val Asp Val Pro Leu
1184         385                 390                 395
1186 aat acc agg gtg ggc acc aaa cgc tac atg gct ccc gaa gtg ctg gac   1790
1187 Asn Thr Arg Val Gly Thr Lys Arg Tyr Met Ala Pro Glu Val Leu Asp
1188     400                 405                 410
1190 gaa agc ctg aac aaa aac cac ttc cag ccc tac atc atg gct gac atc   1838
1191 Glu Ser Leu Asn Lys Asn His Phe Gln Pro Tyr Ile Met Ala Asp Ile
1192 415                 420                 425                 430
1194 tac agc ttc ggc cta atc att tgg gag atg gct cgt cgt tgt atc aca   1886
1195 Tyr Ser Phe Gly Leu Ile Ile Trp Glu Met Ala Arg Arg Cys Ile Thr
1196                 435                 440                 445
1198 gga ggg atc gtg gaa gaa tac caa ttg cca tat tac aac atg gta ccg   1934
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RAW SEQUENCE LISTING DATE: 03/21/2006
PATENT APPLICATION: **US/10/571,511** TIME: 14:09:12

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

```
1199 Gly Gly Ile Val Glu Glu Tyr Gln Leu Pro Tyr Tyr Asn Met Val Pro
1200             450                 455                 460
1202 agt gat ccg tca tac gaa gat atg cgt gag gtt gtg tgt gtc aaa cgt   1982
1203 Ser Asp Pro Ser Tyr Glu Asp Met Arg Glu Val Val Cys Val Lys Arg
1204         465                 470                 475
1206 ttg cgg cca att gtg tct aat cgg tgg aac agt gat gaa tgt cta cga   2030
1207 Leu Arg Pro Ile Val Ser Asn Arg Trp Asn Ser Asp Glu Cys Leu Arg
1208     480                 485                 490
1210 gca gtt ttg aag cta atg tca gaa tgc tgg gcc cac aat cca gcc tcc   2078
1211 Ala Val Leu Lys Leu Met Ser Glu Cys Trp Ala His Asn Pro Ala Ser
1212 495                 500                 505                 510
1214 aga ctc aca gca ttg aga att aag aag acg ctt gcc aag atg gtt gaa   2126
1215 Arg Leu Thr Ala Leu Arg Ile Lys Lys Thr Leu Ala Lys Met Val Glu
1216                 515                 520                 525
1218 tcc caa gat gta aaa atc tga tggttaaacc atcggaggag aaactctaga      2177
1219 Ser Gln Asp Val Lys Ile
1220             530
1222 ctgcaagaac tgtttttacc catggcatgg gtggaattag agtggaataa ggatgttaac 2237
1224 ttggttctca gactctttct tcactacgtg ttcacaggct gctaatatta aacctttcag 2297
1226 tactcttatt aggatacaag ctgggaactt ctaaacactt cattctttat atatggacag 2357
1228 ctttatttta aatgtggttt ttgatgcctt tttttaagtg ggtttttatg aactgcatca 2417
1230 agacttcaat cctgattagt gtctccagtc aagctctggg tactgaattg cctgttcata 2477
1232 aaacggtgct ttctgtgaaa gccttaagaa gataaatgag cgcagcagag atggagaaat 2537
1234 agactttgcc ttttacctga gacattcagt tcgtttgtat tctacctttg taaaacagcc 2597
1236 tatagatgat gatgtgtttg ggatactgct tattttatga tagtttgtcc tgtgtcctta 2657
1238 gtgatgtgtg tgtgtctcca tgcacatgca cgccgggatt cctctgctgc catttgaatt 2717
1240 agaagaaaat aatttatatg catgcacagg aagatattgg tggccggtgg ttttgtgctt 2777
1242 taaaaatgca atatctgacc aagattcgcc aatctcatac aagccattta ctttgcaagt 2837
1244 gagatagctt ccccaccagc tttatttttt aacatgaaag ctgatgccaa ggccaaaaga 2897
1246 agtttaaagc atctgtaaat ttggactgtt ttccttcaac caccattttt tttgtggtta 2957
1248 ttatttttgt cacggaaagc atcctctcca aagttggagc ttctattgcc atgaaccatg 3017
1250 cttacaaaga aagcacttct tattgaagtg aattcctgca tttgatagca atgtaagtgc 3077
1252 ctataaccat gttctatatt ctttattctc agtaactttt aaaagggaag ttatttatat 3137
1254 tttgtgtata atgtgcttta tttgcaaatc acccactcct ttacaaccat actttatata 3197
1256 tgtacataca ttcatactgt agaaaccagc tcatgtgtac ctcatatccc atccttaaga 3257
1258 gaagaaatgt tataaagtag aactaaatat aaattttcag aattaatgca ttcaaagtaa 3317
1260 tatatcaaat ccaggacttt gttaacttca ggtaaaaact tcattagggt aatatcatct 3377
1262 caatttttc aaatgaaagg attctctaat tagaaattta tatgtcagag ctgttataaa 3437
1264 tttatcaact gtcaaatatg ttctggacag ctaaatcatt tgagattttt ggtttttga 3497
1266 tttctattcc ctaacttgtg aagacaatga aaaatcaggc agaaatattt agtatctagt 3557
1268 cagtatctgt agctacactg tataactgtt cttcaataaa atggttcata ttttatagaa 3617
1270 aaaaaaaaaa aaaa                                                  3631
```

VERIFICATION SUMMARY DATE: 03/21/2006
PATENT APPLICATION: **US/10/571,511** TIME: 14:09:13

Input Set : **A:\PTO.TS..txt**
Output Set: **N:\CRF4\03212006\J571511.raw**

L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:26 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:1
L:175 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:2
L:331 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:3
L:456 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:4
L:765 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:19
L:1060 M:310 E: (3) Wrong or Missing Sequence Type, numeric identifier <212>, for SEQ ID#:20